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## *REVISED* MEETING NOTES

**TO:** Distribution **DATE:** August 5, 1994

**FROM:** Philip Nixon **PROJECT:** Solar Pond IM/IRA

**MEMO #:** SP307:082494.03

**ATTENDANCE:**

Phil Nixon
Harlen Ainscough, CDH
Arturo Duran, EPA
Frazer Lockhart, DOE
Steve Howard, DOE/SAIC
Shaleigh Whitesell, PRC
Scott Surovchak, DOE
Bill Fraser, EPA
Andy Ledford, EG&G

**DISTRIBUTION:**

Randy Ogg, EG&G
Mark Austin, EG&G
Michelle McKee, EG&G
K. London, EG&G
Steve Keith, EG&G
Steve Cooke, EG&G
Toni Moore, EG&G
R. Popish EG&G (Admin. Record) (2)
Peg Witherill, DOE/SAIC
Jeff Ciocco, DOE
Jesse Roberson, DOE
Bob Siegrist, LATO
Alan McGregor, ERM
John Haasbeek, ERM
Marcia Dibiasi, IGO
Joe Schieffelin, CDH
Shaleigh Whitesell, PRC
L. Benson
P. Breen

A. Conklin
B. Cropper
K. Cutter
W. Edmonson
T. Evans
H. Heidkamp
R. Henry
M. Hill
P. Holland
S. Hughes
R. McConn
D. Myers
A. Putinsky
R. Stegen
S. Stenseng
R. Schmiermund
B. Glenn
R. Wilkinson
T. Kuykendall
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**SUBJECT:** Weekly Status Meeting

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ADMIN RECORD

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1) Review of Previous Meeting Minutes

The group commented on the meeting minutes from the team meeting that was held on August 2, 1994. The meeting minutes will be modified to incorporate the comments prior to being signed and issued. The only major change was that Harlen Ainscough wanted to be on record as specifying that including sludge in the IM/IRA was not addressed in the original dispute resolution (Summer 1993), and that the CDH could not "approve" the concept at this point in time without working the issue internally.

2) Finalization of the Dispute Resolution Reevaluation Summary

The group discussed the final wording that would be used in the Dispute Resolution Reevaluation Summary letter. DOE/EG&G will incorporate the modifications and finalize the document. Important changes to the document are noted below:

a. The team agreed that appropriate criteria were developed to define the "enhancement" issue associated with determining whether materials are remediation wastes. The team also agreed that no reasons were presented during the dispute resolution reevaluation indicating that dispositioning sludge beneath the engineered cover was not an enhancement.

b. Arturo Duran indicated that if sludge is not incorporated beneath the engineered cover then the EPA may again question the need for infiltration abatement.

3) Presentation of the Analysis between a Subsurface Drainage Layer and an Upgradient Vertical Ground Water Control System

Phil Nixon presented a summary of the results of the comparative analysis between the proposed subsurface drain and an upgradient vertical ground water control system. He stated that the estimated depth of the slurry wall would likely be 45 feet to tie into competent low permeable bedrock based on the analysis of the geophysics data and deep boreholes located in the vicinity of the Solar Evaporation Ponds. Installing a slurry wall at these depths would require a slurry-trenching construction technique. Phil noted that this type of construction was difficult to perform Quality Assurance/Quality Control testing since the installation is similar to insitu remediation techniques. The installation of the vertical system would be expensive because special equipment and supplies are needed. The costs of the system would also increase because additional geologic and hydrogeologic studies would be required to determine actual depths to appropriately tie the system into low-permeable competent bedrock, and to develop a ground water model to demonstrate the system's effectiveness. Phil indicated that ES recommends continuing the design of the proposed subsurface drainage layer because the proposed system is considered to be a more reliable system for the 1000-year period of performance. In addition, the proposed system is anticipated to be more cost effective.

It was agreed by the group that installing a slurry wall at depths exceeding 10-15 feet was problematic. Arturo Duran indicated that the EPA would review the data that was used to determine the required depth of excavation. It was also agreed that primary factors preventing the selection of the slurry wall concept include the lack of geologic and hydrogeologic information that was required to move forward with the systems design. The required information would include:

a. additional geophysical analysis where the system would be constructed

b. additional conformational deep borings where the system would be constructed to ensure that the bedrock had a low permeability

c. hydrogeological data from areas upgradient from the system location

Frazer Lockhart indicated that the IM/IRA would have to be put on hold for at least 6 months and likely one year while this data was collected and analyzed. Frazer indicated that the DOE would need to be confident that the benefits of the upgradient vertical ground water control system would be worth the expenditure of the funds for the additional data and a years schedule extension. Arturo Duran stated that installing an upgradient vertical ground water control system could lead to big benefits in that upgradient contaminated ground water would be collected for early remediation. Frazer Lockhart specified that installing an upgradient vertical ground water control system could change the upgradient hydrogeological flow regime which could be problematic. He stated that the upgradient system could have either positive or negative impacts on the overall remediation of ground water at the Rocky Flats Environmental Technology Site. It was agreed that the working group would review and discuss the upcoming alternative evaluation report before making a decision. Scott Surovchak asked if the regulatory agencies would permit the deep slurry wall concept that opened a channel between 2 potentially distinct aquifer systems that could lead to shallow contaminants migrating into the deeper aquifer system. Bill Fraser stated that if the aquifer systems were distinct, then the slurry wall concept as presented would not be appropriate.

4) Other Issues

It was agreed that DOE, CDH, and EPA management would be invited to the August 23, 1994 team meeting to summarize the results of the dispute resolution reevaluation, and to address the issues that the working group could not resolve. The unresolved issues include:

a. The status of sludge as a remediation waste

b. The inclusion of sludge as an enhancement to the remediation.

Frazer Lockhart specified that the meeting should be conducted no differently than the routine team meetings. Scott Surovchak stated the sludge issue should be treated as a question of regulatory interpretation instead of a request for "approval".

Philip A. Nixon

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